BUSINESS METHOD PATENTS

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Judge Rich was also the genesis of much of the Supreme Court's landmark patent opinion in *Graham v. John Deere*.[40] The Supreme Court in that case relied heavily on Judge Rich's article, ''The Vague Concept of Invention as Replaced by Section 103 of the 1952 Patent Act.''[41]

Why Judge Rich ruled the way he did in *State Street Bank* is easier to understand in light of some of his earlier decisions. In particular, his decision in *In re Benson*[42] is quite enlightening.

[A] How Judge Rich Had Ruled in *Benson*

In November of 1970, when he was 66 years old, Judge Rich sat on a panel with Judges Almond, Baldwin Lane and Re to hear the appeal of Gary Benson and Arthur Tabbot. At issue were two independent claims covering a method for converting binary numbers into binary coded decimal (BCD) numbers. Independent claim 8 recited hardware ''reentrant shift registers'' as being required elements of the method. Independent claim 13 did not restrict the method to any particular hardware elements. The patent examiner and the Board of Appeals had both ruled that the claims were drawn to non-statutory subject matter under 35 U.S.C. § 101 because the claimed method involved mental or mathematical steps.

Six months later, on May 6, 1971, Judge Rich published the decision of the Court, reversing the Board of Appeals and finding the claims were statutory under 35 U.S.C. § 101. As it would turn out, Judge Rich's ruling would not stand.

Of the two independent claims, claim 8 was perhaps less troublesome for Judge Rich. This was a method claim that contained an express recitation of ''reentrant shift registers'' to be used in performing the claimed method. A reentrant shift register is a hardware structure found within computers of Benson's day. In general, registers are hardware memory circuits in which data are stored. Shift registers have the ability to shift the stored digits to the right or left. A reentrant shift register has the added ability to carry digits from the left-most digit position to the right-most digit position, and vice versa.

Claim 8 read as follows:

8. The method of converting signals from binary coded decimal form into binary which comprises the steps of
(1) storing the binary coded decimal signals in a reentrant shift register,
(2) shifting the signals to the right by at least three places, until there is a binary ''1'' in the second position of said register,
(3) masking out said binary ''1'' in said second position of said register,
(4) adding a binary ''1'' to the first position of said register,
(5) shifting the signals to the left by two positions,
(6) adding a ''1'' to said first position, and

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[40] Graham v. John Deere, 383 U.S. 1 (1966).
[41] 46 J.P.O.S. 844 (1964).
[42] 441 .F.2d 682 (1971).

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(7) shifting the signals to the right by at least three positions in preparation for a succeeding binary "1" in the second position of said register.

The Commissioner of the Patent Office had argued that the above claim 8 was non-statutory because it was directed to mental processes or mathematical steps. To reach this conclusion the Commissioner urged that the programmable computer, containing the reentrant shift registers, was merely a tool of the mind, and that the method was basically mental in character because the workstuff of the method was numbers.

Judge Rich had little difficulty rejecting this argument. Using language quoted from Judge Baldwin's decision in *In re Musgrave*,[43] Judge Rich asked the question, "Would a reasonable interpretation of the claims include coverage of the process implemented by the human mind?"[44] Judge Rich answered the question, "No." In his words, "Claim 8 is for a method to be practiced in part on particular apparatus specified to be a 'reentrant shift register'."[45]

Claim 13 was more difficult to rationalize. It contained no express recitation to particular hardware:

> 13. A data processing method for converting binary coded decimal number representations into binary number representations comprising the steps of
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> (1) testing each binary digit position i, beginning with the least significant binary digit position, of the most significant decimal digit representation for a binary "0" or a binary "1";
>
> (2) if a binary "0" is detected, repeating step (1) for the next least significant binary digit position of said most significant decimal digit representation;
>
> (3) if a binary "1" is detected, adding a binary "1" at the (i + 1)th and (i + 3)th least significant binary digit positions of the next lesser significant decimal digit representation, and repeating step (1) for the next least significant binary digit position of said most significant decimal digit representation;
>
> (4) upon exhausting the binary digit positions of said most significant decimal digit representation, repeating steps (1) through (3) for the next lesser significant decimal digit representation as modified by the previous execution of steps (1) through (3); and
>
> (5) repeating steps (1) through (4) until the second least significant decimal digit representation has been so processed.

Judge Rich approached this claim by first conceding its lack of "reentrant shift register" recitation, and pointing out that the "signals" terminology used in claim 8 was replaced by seemingly broader "representations" terminology in

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[43] *In re* Musgrave, 431 F.2d 882 (1970).
[44] *In re* Benson, 441 F.2d at 687.
[45] *Id.* at 687.